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10/798,271	03/12/2004	Kyung-geun Lee	1293.1740	5858

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EXAMINER	
DANG, HUNG Q	

ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/798,271	LEE ET AL.	
	Examiner	Art Unit	
	Hung Q. Dang	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :05/03/04, 10/15/04, 05/31/06, 11/03/06, 01/31/07.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

/

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. Sec. 101. Certain types of descriptive material , such as music, literature, art, photographs, and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. Sec. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

Claims 1-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 1-11 recite, "an information storage medium comprising a reproduction-only area in which a standard version number and a revision number different from the standard version number are recorded" which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not

constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-8, 10-16, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Maeda et al. (US Patent 6,072,759).

Regarding claim 1, Maeda et al. disclose an information storage medium (column 5, lines 21-30) comprising a reproduction-only area in which a standard version number and a revision number different from the standard version number are recorded (column 8, line 34 – column 9, line 67).

Regarding claim 2, Maeda et al. also disclose a lead-in area (column 8, line 34 – column 9, line 67; Fig. 5A; Fig. 5B; Fig. 5C); a user data area (Fig. 5A; Fig. 5B; Fig. 5C); and a lead-out area (Fig. 5A; Fig. 5B; Fig. 5C), wherein the reproduction-only area is included in at least one of the lead-in and lead-out areas (column 8, line 34 – column 9, line 67).

Regarding claim 3, Maeda et al. also disclose the reproduction-only area is a disk control data zone included in at least one of the lead-in and lead-out areas (column 8, line 34 – column 9, line 67).

Regarding claim 4, Maeda et al. also disclose the version number is recorded in an m-th byte of the disk control data zone (column 8, line 34 – column 9, line 67).

Regarding claim 5, Maeda et al. also disclose each time the revision number is changed, the changed revision number is recorded in the m-th byte (column 9, lines 35-39).

Regarding claim 7, Maeda et al. also disclose when the revision number is x.y, x is recorded in the first four bits of the m-th byte., and y is recorded in the last four bits of the m-th byte (column 9, lines 22-31).

Regarding claim 8, Maeda et al. also disclose one of a hexadecimal system and a binary system is used to record the revision number (column 9, lines 22-39).

Regarding claim 10, Maeda et al. also disclose the standard version number and the revised number indicate at least one factor associated with data recording and/or reproduction set according to a standard corresponding to the standard version number (column 9, lines 17-58), and wherein, when the content of at least one of the items changes, the revision number corresponding to the changed item is recorded (column 9, lines 35-39).

Regarding claim 11, Maeda et al. also disclose the at least one factor is one of a recording speed, a mass eccentricity, and a recording capacity (column 9, lines 35-39).

Regarding claim 12, Maeda et al. disclose a method of recording and/or reproducing data in an information storage medium (column 2, lines 50-54) which includes a lead-in area (column 8, line 34 – column 9, line 67; Fig. 5A; Fig. 5B; Fig. 5C), a user data area (Fig. 5A; Fig. 5B; Fig. 5C), and a lead-out area (Fig. 5A; Fig. 5B; Fig.

5C), the method comprising: recording a standard version number in the reproduction-only area of at least one of the lead-in and lead-out areas (column 8, line 34 – column 9, line 67; Fig. 5A; Fig. 5B; Fig. 5C); recording a revision number distinguished from the standard version number in the reproduction-only area (column 9, lines 35-39); and reading the standard version number and the revision number and recording and/or reproducing data according to a standard associated with the standard version number and the revision number (column 2, lines 50 – column 3, line 7; column 8, line 34 – column 9, line 67).

Regarding claim 13, Maeda et al. also disclose a drive performs the reading (Fig. 22; Fig. 23A; Fig. 37A).

Claim 14 is rejected for the same reason as discussed in claim 3 above.

Claim 15 is rejected for the same reason as discussed in claim 4 above.

Claim 16 is rejected for the same reason as discussed in claim 5 above.

Claim 18 is rejected for the same reason as discussed in claim 7 above.

Regarding claim 20, Maeda et al. disclose a drive system (Fig. 22; Fig. 23A; Fig. 37A) for recording and/or reproducing data on an information storage medium (column 2, lines 50-54) having a reproduction-only area in which a standard version number and a revision number different from the standard version number are recorded (column 8, line 34 – column 9, line 67; Fig. 5A; Fig. 5B; Fig. 5C), comprising: a pickup which records and/or reproduces the data from the information storage medium (Fig. 22; Fig. 23A; Fig. 37A; column 19, lines 47-55), wherein, when the information storage medium is inserted into the drive system (column 19, lines 39-45), the drive system reads out the

version number and the revision number and records and/or reproduces the data according to a standard corresponding to the version number and the revision number (column 2, line 50 – column 3, line 7; column 8, line 34 – column 9, line 67; column 20, lines 56-60; column 22, lines 7-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (US Patent 6,072,759) as applied to claims 1-5, 7-8, 10-16, 18 and 20 above, and further in view of Ohno et al. (US Patent 6,628,602).

Regarding claim 6, see the teachings of Maeda et al. as discussed in claim 2 above. However, Maeda et al. do not disclose the revision number is repeatedly recorded in the lead-out area.

Ohno et al. disclose the recording information recorded in the lead-in area is repeatedly recorded in the lead-out area (column 1, lines 58-64).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the repeating in the lead-out area of recording information recorded in the lead-in area disclosed by Ohno et al. into the information storage medium disclosed by Maeda et al. for backup reason. The incorporated feature

would make the information accessible even when one of the lead-in and lead-out areas becomes unreadable.

Claim 17 is rejected for the same reason as discussed in claim 6 above.

Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (US Patent 6,072,759) as applied to claims 1-5, 7-8, 10-16, 18 and 20 above, and further in view of Kondo (US Patent 6,600,716).

Regarding claim 9, see the teachings of Maeda et al. as discussed in claim 1 above. Further, Maeda et al. also disclose the revision number is recorded in one byte of the reproduction-only area (column 9, lines 27-39). However, Maeda et al. do not disclose the revision number is repeatedly recorded in at least two of the bytes in the reproduction-only area.

Kondo discloses the recording information recorded in the lead-in area is repeatedly recorded in the lead-in area (column 13, lines 50-54).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the repeating in the lead-in area of recording information recorded in the lead-in area disclosed by Kondo into the information storage medium disclosed by Maeda et al. for backup reason. The incorporated feature would make the information accessible even when the lead-in area becomes unreadable.

Claim 19 is rejected for the same reason as discussed in claim 9 above.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (US Patent 6,072,759) and Komoda et al. (US Patent 6,701,063).

Regarding claim 21, Maeda et al. disclose a drive system for recording data on an information storage medium (column 22, lines 41-67), comprising: an audio/video (AV) encoder which compresses an AV signal according to a specified compression scheme and outputs compressed AV data (column 22, lines 41-63; Fig. 16; Fig. 25); a digital signal processor which receives the compressed AV data, adds data for electronic code correction (ECC) processing to the compressed AV data (column 18, lines 40-42), wherein the data includes a standard version number and a revision number different from the standard version number (column 8, line 34 – column 9, line 67).

However, Maeda et al. do not disclose the digital signal processor to modulates the resulting data according to a specified modulation scheme and outputs modulated data; a radio frequency (RF) amplifier which converts the modulated data into an RF signal; and a pickup which records the RF signal on the information storage medium.

Komoda et al. disclose a digital signal processor to modulates the resulting data according to a specified modulation scheme and outputs modulated data (column 2, lines 20-23); a radio frequency (RF) amplifier which converts the modulated data into an RF signal (column 2, lines 22-24); and a pickup which records the RF signal on the information storage medium (column 2, lines 24-26).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the digital signal processor to modulate and output of the data, the RF amplifier, and the pickup to record the signal on the information storage

medium disclosed by Komoda et al. into the drive system disclosed by Maeda et al. The incorporated feature is necessary to optimize the recording onto the recording medium.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (US Patent 6,072,759 and Okada et al. (US Patent 6,148,140).

Regarding claim 22, Maeda et al. disclose a drive system (Fig. 22; Fig. 23A; Fig. 37A) for reproducing data recorded on an information storage medium (column 2, line 50 – column 3, line 7), comprising; a pickup which detects an optical signal from the information storage medium (Fig. 22; Fig. 23A; Fig. 37A; column 19, lines 47-55); a radio frequency (RF) amplifier which converts the optical signal into an RF signal of modulated data and outputs the RF signal (Fig. 23A; column 19, lines 56-66); a digital signal processor which demodulates the modulated data according to a modulation scheme (column 20, lines 22-32), and outputs compressed audio/video (AV) (column 19, lines 65-66; column 21, line 65 – column 22, line 1, 35-26); and an AV decoder which decodes the compressed AV data and outputs an AV signal (column 21, line 65 – column 22, line 6; column 22, lines 25-40), wherein the data is a standard version number and a revision number different from the standard version number (column 8, line 34 – column 9, line 67).

However, Maeda et al. do not disclose performing error correction code (ECC) processing.

Okada et al. disclose a digital signal processor, which performs error correction code (ECC) (column 35, lines 29-34).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the step of performing error correction code (ECC) disclosed by Okada et al. into the system disclosed by Maeda et al. to correct any errors occurring in the data. The incorporated feature would enhance the integrity of the data.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is 571-270-1116. The examiner can normally be reached on M-Th:7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hung Dang
Patent Examiner

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